UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,534	11/14/2003	· John Rusek	SWI-004-USA-P	8678
27955 7590 03/16/2007 TOWNSEND & BANTA c/o PORTFOLIO IP PO BOX 52050			EXAMINER	
			FELTON, AILEEN BAKER	
MINNEAPOLI			ART UNIT	PAPER NUMBER
•		·	1755	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/16/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	•					
	Application No.	Applicant(s)				
	10/712,534	RUSEK ET AL.				
Office Action Summary	Examiner	Art Unit				
	Aileen B. Felton	1755				
The MAILING DATE of this communicate Period for Reply	ion appears on the cover sheet wil	th the correspondence address				
A SHORTENED STATUTORY PERIOD FOR WHICHEVER IS LONGER, FROM THE MAIL - Extensions of time may be available under the provisions of 37 after SIX (6) MONTHS from the mailing date of this communic - If NO period for reply is specified above, the maximum statutor - Failure to reply within the set or extended period for reply will, Any reply received by the Office later than three months after the earned patent term adjustment. See 37 CFR 1.704(b).	ING DATE OF THIS COMMUNIC 7 CFR 1.136(a). In no event, however, may a reation. ry period will apply and will expire SIX (6) MON' by statute, cause the application to become AB.	CATION. eply be timely filed THS from the mailing date of this communication. EANDONED (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed o	n <u>21 December 2006</u> .					
	This action is non-final.	·				
• •						
Disposition of Claims						
4) ⊠ Claim(s) 1 and 4-14 is/are pending in the 4a) Of the above claim(s) 7 is/are withdrest is/are allowed. 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) 1.4-6 and 8-14 is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction	awn from consideration.					
Application Papers						
9) The specification is objected to by the E	xaminer.					
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the 11) The oath or declaration is objected to by	· · · · · · · · · · · · · · · · · · ·					
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for a) All b) Some * c) None of: 1. Certified copies of the priority doc 2. Certified copies of the priority doc 3. Copies of the certified copies of the application from the International * See the attached detailed Office action for	cuments have been received cuments have been received in A he priority documents have been Bureau (PCT Rule 17.2(a)).	pplication No received in this National Stage				
Attachment(s)						
1) Notice of References Cited (PTO-892)	·	Summary (PTO-413)				
 2) Notice of Draftsperson's Patent Drawing Review (PTO-3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 	* · - /	s)/Mail Date nformal Patent Application 				

DETAILED ACTION

Election/Restrictions

- 1. Applicant's election without traverse of species in the reply filed on 5/30/2006 is acknowledged.
- 2. Claim 7 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 5/30/2006. This claim does not read on the elected fuel species of ethers.

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1, 4-6, and 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diede (US 6695938) in view of Thompson (US 5621156).

Diede discloses a hypergolic bipropellant comprising oxidizers, reactive metals such as lithium borohydride dissolved in amines and ethers which also act as fuels (col. 4 and 5). Diede does not disclose the use of a gelling agent.

Thompson teaches that it is known to use silica gel as a gelling agent with a hypergolic propellant (col. 2, lines 33-40).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the gelling agent with the composition of Diede since

Application/Control Number: 10/712,534

Art Unit: 1755

Thompson suggests that gelling agents are useful with hypergolic propellants in order to enable them to withstand high g forces.

Response to Arguments

5. Applicant's arguments have been fully considered but they are not persuasive.

The Diede reference clearly discloses lithium borohydride dissolved in solvents such as hydrocarbons and amines. The reference further indicates that these can serve as fuels. Since Diede uses amines, this meets the sensitizer limitation in claim 1.

In response to applicant's argument that the reason for combing Diede and Thompson is not sufficient, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Thompson suggests that using gelling agents with hypergolic fuels enables them to withstand high g forces.

Conclusion

Application/Control Number: 10/712,534

Art Unit: 1755

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Page 4

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen B. Felton whose telephone number is 571.272.6875. The examiner can normally be reached on Monday-Friday 6:30-4:00, except alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571.272.1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/712,534

Art Unit: 1755

Page 5

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AILEEN FELTON